



October 24, 2016

Jared Blumenfeld
U.S. EPA, Region 9
NPDES/DMR, ENF-4-1
75 Hawthorne Street
San Francisco, CA 94105-3901

**Re: Discharge Monitoring Report – Second Quarter 2016
Platforms Ellen, Elly, and Eureka NPDES Permit CAG280000**

Dear Mr. Blumenfeld:

This letter and its attachments include Discharge Monitoring Reports (DMRs) for the reporting period of July, August and September for Beta Offshore Platforms Ellen, Elly and Eureka.

All produced fluids from Platform Eureka are piped to Platform Elly for processing. Platforms Elly and Ellen are two separate platforms attached by a bridge, thus they have the same latitude and longitude listed in their DMRs. We have submitted separate DMRs for each of the three platforms since there are separate NPDES discharges associated with each platform. Oil production wells are located at Platforms Ellen and Eureka. Platform Elly serves as a processing facility and contains most of the production treatment processes. This is the only platform that may occasionally discharge produced water. There are no drilling related activities or wells on Platform Elly. Production fluids generated at Ellen and Eureka are sent to Elly for further processing and back to Ellen for injection.

Attachment 1: EPA DMR forms (3320-1) for Eureka, Elly and Ellen which were supplied by EPA.

Attachment 2: Listings of the chemical inventory for miscellaneous discharges (specifically non-contact cooling water) for each platform.

Attachment 3: Provides pre-dilution and post dilution chlorine results for non-contact cooling water discharges in accordance with Appendix C of the permit for each platform.

Attachment 4: Summarizes discharges that are prohibited.

Attachment 5: Includes copies of the official state certified lab reports and laboratory quality control reports and other permit required information (EPA Methods, sample dates, etc.) for each Platform.

Attachment 6: Includes a copy of a letter previously sent to EPA regarding the discharge that occurred in August 2016.

Discharge Overview

Drilling Muds and Cuttings (001):

There were no drilling activities during this quarter.

Produced Water (002):

Produced water dilution – Platform Elly: On rare occasions when produced water is discharged, the discharge typically only occurs for a few hours or less. When calculating the dilution for discharges that occurred for the quarter, we use the average produced water daily rate based on the actual barrels of water per day “rate”. As an example, if 100 barrels were discharged in one hour, the actual rate would extrapolate to a 2400 barrels of water per day (BWD) “rate”, instead of only 100 BWD. This better represents the flow velocity used in the EPA Plume dilution calculation. The dilution calculated for this DMR reporting period was 1218:1.

Small amounts of produced water were discharged for short periods of time on August 9, September 24 and September 26 and results are included in this DMR. On August 9, due to a previous upset that contaminated the water holding tank, an oil and grease sample exceeded the permit limit and EPA was previously notified (see attachment 6 for a detailed report). There were no oil and grease exceedances during the month of September. The September discharges were a result of an emergency vibration shutdown of the produced water injection pump while the back up pump was down for repairs. The brief discharges were required to prevent the produced water tank from overflowing and was necessary to meet platform safety protocol. As you are aware, produced water discharges are allowed under the NPDES Permit. At no time did we expect there to be any threat to human health or the environment as a result of these discharges.

Well Treatment Completion and Workover Fluids (003):

WTCWF generated from Platform Ellen or Eureka would be commingled with the produced water at Platform Elly/Ellen. There was one workover fluid type job performed during the month of September at Platform Ellen and one workover job at Platform Eureka during the month of July. There were no discharges of fluids. Chemical inventories are available on request.

Deck Drains (004):

Platform Ellen and Elly deck drains are commingled with production fluids and are processed at Platform Elly. Water segregated from the process is re-injected at Platform Ellen. Refer to Produced Water monitoring requirements in the DMR if discharged. Deck drain fluids on Platform Eureka are sent to a disposal well on Eureka and not discharged.

Sanitary and Domestic Waste (005):

Platforms Ellen and Eureka both operate a United States Coast Guard approved Marine Sanitation Device (MSD). Although these devices are capable of treating both sanitary and domestic waste, some of the domestic waste (as laundry water) is not discharged. At Platform Ellen, these domestic volumes are commingled with production fluids, sent to Platform Elly for processing, and returned to Platform Ellen for injection with produced water. The sanitary waste commingles with sink and shower water and is properly treated and chlorinated through the MSD, then discharged at Platform Ellen.

Platform Eureka also has sanitary and domestic waste water discharges (refer to the DMR). Domestic waste water (as laundry water) is sent to a disposal well and not discharged at Eureka. Sanitary wastes are treated through a USCG-approved MSD and discharged at Eureka. There are no sanitary/domestic waste discharges at Platform Elly.

Fire water (008):

Fire water at Platforms Ellen and Elly is commingled with deck drains and injected with produced water at Platform Ellen. Small amounts may be discharged overboard during fire water system testing at Platform Elly. The fire water and deck drain volumes at Platform Eureka are sent to a disposal well and are not discharged. The fire water was reported as not being chlorinated at all three platforms.

Non-contact Cooling Water (009) - Combined with Excess Sea Water:

Non-contact cooling water (as sea water) may be discharged at all three platforms. Separate discharges occur through separate outfalls for each of the three platforms. Seawater pumps deliver water throughout the platforms for use as non-contact cooling water, marine sanitation device feed water and for sanitary usage supply. Any excess seawater not used for these sources has been previously reported under uncontaminated water in the DMRs under a separate discharge (016). When the non-contact cooling water is discharged it can be combined with the excess seawater discharges at Eureka and Ellen. Since the platforms add low dosages of chlorine treatment to this part of the system, chlorine monitoring has been performed on the chlorinated discharges and if applicable, includes excess seawater in addition to the non-contact cooling water. Thus, the DMR reports the total water discharged for both sources (non-contact cooling water and excess seawater). Both volumes and chlorine results for the combined discharges are listed in the DMR under non-contact cooling water for Eureka and Ellen. Elly has only non-contact cooling water. Any separate uncontaminated discharges that occur, will continue to be reported independently under discharge (016) in the DMR.

The chemical inventory for non-contact cooling water (Attachment 2) was based on Operations' daily estimates using a Hach color wheel chlorine test kit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. & 1001 and 33 U.S.C. & 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years)

Should you have any questions or require any additional information, please contact me at (562) 628-1526.

Sincerely,



Diana Lang
HSE Manager

Enclosures

cc (via email):

Mr. Blumenfeld
October 24, 2016
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Regional Supervisor
Bureau of Safety and Environmental
Enforcement (BSEE)
760 Paseo Camarillo
Camarillo, CA 93010-6064

Ms. Alison Dettmer
Energy and Ocean Resources Unit
California Coastal Commission
45 Fremont, Suite 2000
San Francisco, CA 94105-2219

Regional Supervisor
Office of Environment
Bureau of Ocean Energy Management (BOEM)
760 Paseo Camarillo, 2nd Floor
Camarillo, Ca 93010
Attn: Chief, Environmental Analysis Section

Form Approved
OMB No. 2040-0004

NAME: BETA OFFSHORE PLATFORM ELLY - CAG2800000

LONG BEACH, CA 90802

LOCATION: LAT 33 35 .25 LO 118 07 37.52

PACIFIC OCEAN, CA 90802

ATTN: Marina Robertson

DMR Mailing ZIP CODE: 90802
MINOR (SUBR FW)
Produced Water Monthly
External Outfall

No Discharge ☐

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	TELEPHONE		DATE
Bruce Berwagel	(562) 628 1526		10 24 2016
Executive Vice President, Chief Operating Officer	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		
TYPED OR PRINTED	AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

1. WTCMF - Deck Drainage, Domestic Waste & Fire Control Water are commingled with production & processed at platform Eilly.
2. Produced water annual cumulative flow from March 1st thru Feb 28th each year.

3. Oil and grease sampling is weekly during discharge (no sample during weeks with no produced water discharges).

* Refer to cover letter.



US EPA, Region 9
NPDES/DMR, ENF-4-1
75 Hawthorne Street
San Francisco, CA 94105-3901
Attn: Eugene Bromley

August 23, 2016

Dear Mr. Bromley,

Subject: Produced Water Oil and Grease Exceedance Notification

The following letter is in response to a 24 hour verbal notification given to EPA on August 19, 2016 regarding a produced water discharge at Platform Elly (reference NRC Notification #1156753). As required in the General NPDES permit - CAG280000 the following is a written notification and explanation of (and/or potential) exceedance of the oil and grease limitations for produced water NPDES discharges:

Standard operating procedures on Platform Elly is to inject all of the produced water back into the oil producing reservoir. On rare occasions if the injection system fails, operators temporarily divert treated produce water to the emergency sump (U-06) and monitor the discharge as required under the NPDES Permit. This occurred on August 9, 2016 for approximately 14 minutes (from 2:38 am to 2:52 am) and an estimated total of 197 barrels of water was discharged to the ocean. The sample point where the oil and grease samples were collected was downstream of the produced water tank S-03 and prior to an emergency sump U-06. The emergency sump is located on the lower deck and extends to the ocean. It is a vertical pipe type structure used to capture and skim off any free oil that makes it to the sump. This sump is currently skimmed of any free oil twice per day. The sump extends -177 ft. and it was not possible to sample the water discharged at the bottom of the sump's outlet. Instead, the sample was collected upstream of the sump (which is technically the last treatment vessel) and may not necessarily be representative of the water that was actually discharged from the sump outlet. In either case a sample was collected during the discharge from the outlet of the S-03 produced water tank. It should also be noted that there was no reported sheen in the receiving water as a result of the discharge.

Data Results are as follows:

Date:	Time:	O&G (mg/l)
8/9/2016	2:38 am	15,300

System Review and Corrective Actions:

As soon as the lab data results were known, EPA was notified and there was a detailed review of the production treatment process. The apparent cause of the oil in the water was closely reviewed to determine what could prevent this from happening again. It was found that the treated produced



water holding tank (S-03) had been contaminated with oil from an oil dehydration system upset which allowed oil to enter the tank. This tank has limited skimming capability since it is designed as a surge tank for clean filtered produced water. Once the discharge began, it's likely that some of the oil pad that had built up in the tank made its way into the water phase causing the much higher than normal oil and grease levels.

Prior to any more discharges, the S-03 tank will be bypassed and cleaned. Any accumulated tank bottoms and oil will be removed and cleaned from the tank. Additionally an improved oil skimming mechanism will be installed to capture future upsets should they occur. Operations is also looking at installing a sample point in the sump whose additional skimming capabilities would result in a sample closer to the discharge point and more representative of the actual water discharged to the ocean.

At no time did we anticipate there to be any harm to human health or the environment as a result of the discharge.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions please contact me at (562) 628-1526.

Sincerely,

A handwritten signature in cursive script that reads 'Diana Lang'.

Diana Lang
HSE Manager
Beta Offshore